

Food and Drug Administration 10903 New Hampshire Avenue Document Control Center - WO66-G609 Silver Spring, MD 20993-0002

July 8, 2015

Aesculap, Inc. % Denise Adams Regulatory Affairs Specialist 3773 Corporate Parkway Center Valley, PA 18034

Re: K142970

Trade/Device Name: SterilContainer S System

Regulation Number: 21 CFR 880.6850 Regulation Name: Sterilization Wrap

Regulatory Class: Class II

Product Code: KCT Dated: June 9, 2015 Received: June 10, 2015

Dear Ms. Adams.

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the <u>Federal Register</u>.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply

with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Division of Industry and Consumer Education at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address

http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to

http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Industry and Consumer Education at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address

http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm.

Sincerely yours,

Tejashri Purohit-Sheth, M.D. Clinical Deputy Director

Tejashri Purohit-Sheth, M.D. Clinical Deputy Director DAGRID/ODE/CDRH FOR

Erin I. Keith, M.S.

Director

Division of Anesthesiology,
General Hospital, Respiratory, Infection
Control, and Dental Devices

Office of Device Evaluation
Center for Devices and Radiological Health

Enclosure

DEPARTMENT OF HEALTH AND HUMAN SERVICES Food and Drug Administration

Indications for Use

Form Approved: OMB No. 0910-0120 Expiration Date: January 31, 2017 See PRA Statement below.

510(k) Number (if known) K142970

Device Name SterilContainer S System

Indications for Use (Describe)

The SterilContainer S System is a reusable sterilization container system (consisting of perforated bottoms and perforated lids with filter retention plates, and single-use polypropylene filters) intended to be used to enclose another medical device that is to be sterilized by a healthcare provider. This container system has been validated with hinged, and knurled instruments. It is intended to allow sterilization of the enclosed device and also maintain sterility of the enclosed device until used. This container system is compatible for use with STERRAD 100NX EXPRESS Cycle. The SterilContainer S System includes accessories such as silicone mats, baskets, trays, racks, eyepiece holders and sleeve holders.

Testing has been completed on the SterilContainer S Full size container to maintain the sterility of its contents for 360 days following successful sterilization.

Testing has been completed on the SterilContainer $S^{1/2}$ size container to maintain the sterility of its contents for 30 days following successful sterilization.

The validated chamber load for the SterilContainer S Full and Half sizes in the STERRAD 100NX EXPRESS Cycle consisted of one SterilContainer S placed on the bottom shelf in an otherwise empty chamber.

SterilContainer S Compatible Containers in STERRAD 100NX EXPRESS Cycle

Lid	Bottom	Description	Total loaded container weight (lbs)	Intended load
JM489	JM440	Full Size 90mm (4 1/4")	25.0	reusable metal and non-metal medical
	JM441	Full Size 120mm (5 ½")	25.0	devices without lumens including
	JM442	Full Size 135mm (6")	25.0	endoscopes without lumens OR the da Vinci
	JM444	Full Size 187mm (8")	25.0	Scope Platform (MD425) and two Si or S series da Vinci Scopes
JM389	JM340	½ Size 90mm (4 ½")	21.2	reusable metal and non-metal medical
	JM341	½ Size 120mm (5 ½")	21.5	devices without lumens including
	JM342	½ Size 135mm (6")	21.7	endoscopes without lumens
	JM344	½ Size 187mm (8")	22.2	

STERRAD 100NX EXPRESS Cycle Compatible SterilContainer S System Accessories

Accessories	STERRAD 100NX EXPRESS Cycle
Stainless Steel baskets, basket lids, and dividers	Yes
Instrument Organization System (Silicone and Stainless Steel racks, brackets, holders, and clamps)	Yes
Silicone mats	Yes
Stainless Steel racks, trays, holders, clamps, brackets, and platforms	Yes

Type of Use (Select one or both, as applicable)		
Prescription Use (Part 21 CFR 801 Subpart D)	Over-The-Counter Use (21 CFR 801 Subpart C)	

CONTINUE ON A SEPARATE PAGE IF NEEDED.

This section applies only to requirements of the Paperwork Reduction Act of 1995.

DO NOT SEND YOUR COMPLETED FORM TO THE PRA STAFF EMAIL ADDRESS BELOW.

The burden time for this collection of information is estimated to average 79 hours per response, including the time to review instructions, search existing data sources, gather and maintain the data needed and complete and review the collection of information. Send comments regarding this burden estimate or any other aspect of this information collection, including suggestions for reducing this burden, to:

Department of Health and Human Services Food and Drug Administration Office of Chief Information Officer Paperwork Reduction Act (PRA) Staff PRAStaff@fda.hhs.gov

"An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB number."

510(k) SUMMARY (as required by 21 CFR 807.92)

SterilContainer S System

June 29, 2015

COMPANY: Aesculap, Inc.

3773 Corporate Parkway Center Valley, PA 18034

Establishment Registration Number: 2916714

CONTACT: Denise R. Adams

610-984-9076 (phone) 610-791-6882 (fax)

TRADE NAME: SterilContainer S System

COMMON NAME: Sterilization Container

CLASSIFICATION NAME: Sterilization Wrap

PRODUCT CODE: KCT

DEVICE CLASS: Class II per 21 CFR §880.6850

SUBSTANTIAL EQUIVALENCE

Aesculap, Inc. believes that the SterilContainer *S* System for use in the STERRAD 100NX EXPRESS Cycle is substantially equivalent to Aesculap SterilContainer *S* for use in STERRAD 200, NX (Standard and Advanced Cycles), and 100NX (Standard and Flex Cycles) cleared via K093493.

DEVICE DESCRIPTION

The SterilContainer S System is a container system that will allow for sterilization and storage of medical devices. This container system is for use in low-temperature sterilization technology such as with the STERRAD 100NX EXPRESS Cycle. The SterilContainer S System rigid containers are made from non-anodized Aluminum and utilize disposable (single use) polypropylene filters. The SterilContainer S System includes accessories such as mats, baskets, trays, holders, organizers, filters, indicator cards and tamper-evident locks.

INDICATIONS FOR USE

The SterilContainer *S* System is a reusable sterilization container system (consisting of perforated bottoms and perforated lids with filter retention plates, and single-use polypropylene filters) intended to be used to enclose another medical device that is to be sterilized by a healthcare provider. This container system has been validated with hinged, and knurled instruments. It is intended to allow sterilization of the enclosed device and also maintain sterility of the enclosed device until used. This container system is compatible for use with STERRAD 100NX EXPRESS Cycle. The SterilContainer *S* System includes accessories such as silicone mats, baskets, trays, racks, eyepiece holders and sleeve holders.

Testing has been completed on the SterilContainer S Full size container to maintain the sterility of its contents for 360 days following successful sterilization.

Testing has been completed on the SterilContainer $S \frac{1}{2}$ size container to maintain the sterility of its contents for 30 days following successful sterilization.

The validated chamber load for the SterilContainer S Full and Half sizes in the STERRAD 100NX EXPRESS Cycle consisted of one SterilContainer S placed on the bottom shelf in an otherwise empty chamber.

SterilContainer S Compatible Containers in STERRAD 100NX EXPRESS Cycle

Lid	Bottom	Description	Total loaded	Intended load
			container weight	
			(lbs)	
JM489	JM440	Full Size 90mm (4 1/4")	25.0	reusable metal and non-metal medical
	JM441	Full Size 120mm (5 ½")	25.0	devices without lumens including
	JM442	Full Size 135mm (6")	25.0	endoscopes without lumens OR the da Vinci
	JM444	Full Size 187mm (8")	25.0	Scope Platform (MD425) and two Si or S
				series da Vinci Scopes
JM389	JM340	½ Size 90mm (4 ¼")	21.2	reusable metal and non-metal medical
	JM341	½ Size 120mm (5 ½")	21.5	devices without lumens including
	JM342	½ Size 135mm (6")	21.7	endoscopes without lumens
	JM344	½ Size 187mm (8")	22.2	

STERRAD 100NX EXPRESS Cycle Compatible SterilContainer S System Accessories

Accessories	STERRAD 100NX
	EXPRESS Cycle
Stainless Steel baskets,	Yes
basket lids, and dividers	
Instrument Organization	Yes
System (Silicone and	
Stainless Steel racks,	
brackets, holders, and clamps)	
Silicone mats	Yes
Stainless Steel racks, trays,	Yes
holders, clamps, brackets, and	
platforms	

TECHNOLIGICAL CHARACTERISTICS (compared to predicates)

JM3

44

½ Size

187mm

22.2

STERRAD 100NX EXPRESS Cycle Compatible

(6")

(8")

The SterilContainer S System is for use in low-temperature sterilization technology such as the STERRAD 100NX EXPRESS Cycle. The SterilContainer S System is the same container system as was cleared in K093493. The materials and design have not changed.

System	SterilContainer S (K142970)				SterilContainer S (K093493)			
Indica- tions for Use	system filter r intend steriliz valida allow of the compa SterilC mats, l	n (consiste etention ed to be ged by a lated with sterilization enclosed utible for Container baskets, to g has been er to ma	ing of perforate plates, and sing used to enclose nealthcare provininged, and knuton of the enclo device until us use with STER S System inclurays, racks, eye en completed or	ed bottoms an ile-use polypr another medi ider. This con irled instrume sed device an ed. This conta RAD 100NX ides accessoria epiece holders in the SterilCo lity of its conta	cal device that is to be tainer system has been ents. It is intended to d also maintain sterility	(consisting disposable device that validated v to allow strenclosed d STERRAL includes ac and sleeve The Sterilo	container S is recommended for surface and 2000, stainless steel lumens $\geq 3 \text{mm I.D. x}$	with filter retention plates, ar to enclose another medical. This container has been urled instruments. It is intend maintain sterility of the compatible for use with the Advanced cycle), and The Sterilcontainer S System ays, racks, eyepiece holders at lumens:
	mainta steriliz The va sizes i	ain the storage of the station. The station of the	erility of its con chamber load fo ERRAD 100NX	ntents for 30 d or the SterilCo X EXPRESS (ntainer $S \frac{1}{2}$ size contain ays following successfuntainer S Full and Half Cycle consisted of one f in an otherwise empty	en ≥ 2mm I.I all STERRAD ≥ 1mm I.I STERRAD ≥ 0.7mm I STERRAD	0 NX standard cycle, stainless steel lumens 0. $x \le 400 \text{mm L}$ 0 NX advanced cycle, stainless steel lumen 0. $x \le 500 \text{mm L}$ 0 100NX standard cycle, stainless steel lum 1.D. $x \le 500 \text{mm L}$ 0 100NX flex cycle, porous lumens (flexib 0. $x \le 850 \text{mm L}$	nens
	Ste	rilConta		tible Contain XPRESS Cyc	ers in STERRAD 100 le	TABLE 1:	shelf life testing has been conducted for the SterilContainer S Compatible Contain	ers in STERRAD 200
	Lid	Botto	Description	Total	Intended load	Item #	Description	Total loaded container weight (lbs)
		m		loaded container weight		JM440 JM441	Full Size Perforated Bottom 90mm (4 1/4") Full Size Perforated Bottom 120mm (5	21.46
		D (4	E 11 G:	(lbs)	11 1		1/2")	
	J M	JM4 40	Full Size 90mm (4	25.0	reusable metal and non-metal	JM442	Full Size Perforated Bottom 135mm (6")	21.46
	48 9	JM4	¹ / ₄ ") Full Size	25.0	medical devices without lumens	JM444	Full Size Perforated Bottom 187mm (8")	21.46
		41	120mm (5		including	JM740	³ / ₄ Size Perforated Bottom 90mm(4 ¹ / ₄ ")	14.42
		JM4	½") Full Size	25.0	endoscopes without lumens	JM741	34 Size Perforated Bottom 120mm (5 1/2")	14.42
		42	135mm		OR the da Vinci Scope	JM742	³ / ₄ Size Perforated Bottom 135mm (6")	14.42
		TM 4	(6")	25.0	Platform	JM340	½ Size Perforated Bottom 90mm (4 ¼")	14.42
		JM4 44	Full Size 187mm	25.0	(MD425) and	JM341	½ Size Perforated Bottom 120mm (5 ½")	14.42
			(8")		two Si or S series da Vinci	JM342	½ Size Perforated Bottom 135mm (6")	14.42
					Scopes Scopes	JM344	½ Size Perforated Bottom 187mm (8")	14.42
	J	JM3	½ Size	21.2	reusable metal	JM094	1/4 Size Perforated Bottom with Lid	14.42
	M	40	90mm (4		and non-metal	JM096	65mm (2 ½")	14.40
	20					1 11/1/10/6		
	38	D.12	1/4")	21.5	medical devices	J1V1090	¹ / ₄ Size Perforated Bottom with Lid	14.42
	38	JM3	½ Size	21.5	without lumens		130mm (5 1/8")	
		JM3 41	½ Size 120mm (5	21.5	without lumens including	JM021	130mm (5 1/8") Extra Long Mini Bottom 73mm (3")	7.64
			½ Size	21.5	without lumens		130mm (5 1/8")	

JM389

JM094 &

JM096

See

1/2 Size Lid

1/4 Size Lid

JM020 Extra Long Mini Lid

SterilContaine	r S System Accessories
Accessories	STERRAD 100NX EXPRESS Cycle
Stainless Steel baskets, basket lids, and dividers	Yes
Instrument Organization System (Silicone and Stainless Steel racks, brackets, holders, and clamps)	Yes
Silicone mats	Yes
Stainless Steel racks, trays, holders, clamps, brackets, and platforms	Yes

Note: Full, ¾, ½, and ¼ size containers have been validated with 5 stainless steel lumens per container system. The Extra Long Mini container has been validated with 2 stainless steel lumens per container system.

TABLE 2: SterilContainer S Compatible Containers in STERRAD NX Standard and Advanced Cycle

Item #	Description	Total loaded container weight (lbs)
JM440	Full Size Perforated Bottom 90mm (4 1/4")	21.46
JM441	Full Size Perforated Bottom 120mm (5 ½")	21.46
JM740	³ / ₄ Size Perforated Bottom 90mm (4 ¹ / ₄ ")	13.85
JM741	³ / ₄ Size Perforated Bottom 120mm (5 ½")	13.85
JM742	³ / ₄ Size Perforated Bottom 135mm (6")	13.85
JM340	½ Size Perforated Bottom 90mm (4 ¼")	13.85
JM341	½ Size Perforated Bottom 120mm (5 ½")	13.85
JM094	¹ / ₄ Size Perforated Bottom with Lid 65mm (2 ¹ / ₂ ")	13.85
JM096	¹ / ₄ Size Perforated Bottom with Lid 130mm (5 1/8")	13.85
JM021	Extra Long Mini Bottom 73mm (3")	7.64
JM489	Full Size Lid	
JM789	¾ Size Lid	
JM389	½ Size Lid	
See	1/4 Size Lid	
JM094 &		
JM096		
JM020	Extra Long Mini Lid	

Note: Full, ¾, ½, and ¼ size containers have been validated with 5 stainless steel lumens per container system. The Extra Long Mini container has been validated with 2 stainless steel lumens per container system.

TABLE 3: SterilContainer S Compatible Containers in STERRAD 100NX Standard Cycle

Item #	Description	Total loaded container weight (lbs)
JM440	Full Size Perforated Bottom 90mm (4 1/4")	21.46
JM441	Full Size Perforated Bottom 120mm (5 ½")	21.46
JM442	Full Size Perforated Bottom 135mm (6")	21.46
JM444	Full Size Perforated Bottom 187mm (8")	21.46
JM740	³ / ₄ Size Perforated Bottom 90mm(4 ¹ / ₄ ")	13.85
JM741	³ / ₄ Size Perforated Bottom 120mm (5 ½")	13.85
JM742	³ / ₄ Size Perforated Bottom 135mm (6")	13.85
JM340	½ Size Perforated Bottom 90mm (4 ¼")	13.85
JM341	½ Size Perforated Bottom 120mm (5 ½")	13.85
JM342	½ Size Perforated Bottom 135mm (6")	13.85
JM344	½ Size Perforated Bottom 187mm (8")	13.85
JM094	¹ / ₄ Size Perforated Bottom with Lid 65mm (2 ¹ / ₂ ")	13.85
JM096	¹ / ₄ Size Perforated Bottom with Lid 130mm (5 1/8")	13.85
JM021	Extra Long Mini Bottom 73mm (3")	7.64
JM489	Full Size Lid	
JM789	¾ Size Lid	
JM389	½ Size Lid	
See	¼ Size Lid	
JM094 &		
JM096		

			Extra Long Mini Lid 34, 1/2, and 1/4 size containers have been valid container system. The Extra Long Mini container system.	
			steel lumens per container system.	italilei has been validated with
		TABLE 4: Cvcle	SterilContainer S Compatible Container	rs in STERRAD 100NX Flex
		Item #	Description	Total loaded container weight (lbs)
		JM440	Full Size Perforated Bottom 90mm (4 1/4")	9.67
		JM441	Full Size Perforated Bottom 120mm (5 ½")	9.67
		JM442	Full Size Perforated Bottom 135mm (6")	9.67
		JM444	Full Size Perforated Bottom 187mm (8")	9.67
		JM740	³ / ₄ Size Perforated Bottom 90mm(4 ¹ / ₄ ")	9.67
		JM741	³ / ₄ Size Perforated Bottom 120mm (5 ½")	9.67
		JM742	³ / ₄ Size Perforated Bottom 135mm (6")	9.67
		JM340	½ Size Perforated Bottom 90mm (4 ¼")	9.67
		JM341	½ Size Perforated Bottom 120mm (5 ½")	9.67
		JM342	½ Size Perforated Bottom 135mm (6")	9.67
		JM344	½ Size Perforated Bottom 187mm (8")	9.67
		JM489	Full Size Lid	
		JM789	34 Size Lid	
		JM389	½ Size Lid]
		container sy	34, and ½ size containers have been validate vstem.	su with i Pife/PE lumen per
Sterili- zation	STERRAD 100NX EXPRESS Cycle	STERRA	AD 200, NX (Standard and Advanced and Flex Cycles)	ed Cycles), 100NX
process Material	Non-anodized aluminum	Non ener	dized aluminum	
Con-	Perforated	Perforate		
tainer	renorateu	Periorate	cu	
type Filter	Polypropylene	Polyprop	vlono	
type	готургоругене	Polyprop	yiene	

PERFORMANCE DATA

Validation studies have been performed with the SterileContainer *S* System in the STERRAD 100NX EXPRESS Cycle. These validations were conducted by a qualified testing laboratory.

Performance Properties	Results
Sterilization Efficacy	Testing demonstrated a 6 log reduction to no growth in a half
	cycle validation. This testing supports a sterility assurance level (SAL) of 10^{-6} in a full cycle validation.
Whole Package Microbial	After exposure to a defined amount of aerosol
Aerosol Challenge	microorganisms contents maintained sterility
Event Related Sterility	Testing demonstrated the ability to provide an effective
Maintenance	barrier for maintaining sterility of the contents after
	processing followed by a 30 or 360 day event related
	storage under conditions which simulate hospital sterile

	package handling and storage conditions.
Material Compatibility	After 100 cycles of processing no visible or functional
	changes were observed
Biocompatibility	Cytotoxicity testing was conducted per ISO 10993-5 and
	showed no evidence of causing cell lysis or toxicity.
	A Hemolysis study was conducted per ASTM F756 and
	ISO 10993-4 and results were non-hemolytic

CONCLUSION

Performance testing demonstrates that the subject device is substantially equivalent to the predicate device.